

JUN - 5 2000

K 000 744

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## 510(k) Summary for the Bridge™ X3 Stent

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**510(k) Summary** This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of AMDA 1990 and 21 CFR 807.92.

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**Identification** The assigned 510(k) number is \_\_\_\_\_.

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**Applicant:** Medtronic AVE, Inc.  
Peripheral Technologies  
2170 Northpoint Parkway  
Santa Rosa, California 95407  
Contact: Susan L. Walton

Phone: (707) 591-7315 FAX: (707) 591-7406  
e-mail: [susan.walton@medtronic.com](mailto:susan.walton@medtronic.com)  
Date submitted: March 3, 2000

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**Tradename:** Device Name: Bridge™ X3 Stent

Model Numbers:	XC517F	XC617F	XC717F
	XC517H	XC617H	XC717H
	XC517L	XC617L	XC717L

Classification Name: Catheter, Biliary and accessories

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**Section 513  
Device  
Classification** Classification: Class II  
Classification Panel: 78FGE

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**Equivalence** Medtronic AVE claims substantial equivalence to the Medtronic AVE Stent Delivery System - For Use In Biliary Indication cleared in K991533.

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**Intended Use** The Bridge™ X3 Stent is intended to maintain patency of a bile duct which is occluded by a malignant tumor.

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## 510(k) Summary for the Bridge™ X3 Stent, Continued

### Description of Device

The device consists of a balloon expandable intraluminal stent premounted onto the balloon of an over-the-wire delivery catheter. The device has two radiopaque markers mounted on the inner shaft (at each end of the stent) to aid in the placement of the stent during fluoroscopy. The delivery system is compatible with 0.018 inch guidewires and has a useable length of 75cm, 90cm or 120cm. The device is provided in a sterile package.

Size range:            Diameters:    5.0mm to 7.0 mm  
                              Lengths        17mm

### Comparison Table

This device is intended to maintain patency of a biliary duct which is occluded by a malignant tumor.

Characteristic	Subject Device	Predicate Device
Intended Use	This device is intended to maintain patency of a bile duct which is occluded by tumor.	This device is intended to maintain patency of a bile duct which is occluded by tumor.
Physical Characteristics (stent)	Diameters 5 - 7mm Length 17mm	Diameters 5 - 7mm Lengths 10, 17mm
Physical Characteristics (delivery system)	3.9 F shaft 75, 90 and 120cm lengths 0.018 in. guidewire Ø	5.3 F shaft 75 and 120cm lengths 0.035 in. guidewire Ø
Anatomical site	Bile duct	Bile duct
Target population	Patients with bile duct obstruction caused by malignant tumor.	Patients with bile duct obstruction caused by malignant tumor.

### Performance Testing

Performance testing was conducted on the subject device for the purpose of direct comparison to the predicate device. The testing was chosen to highlight any differences between the subject device and the predicate device.

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## 510(k) Summary for the Bridge™ X3 Stent, Continued

### Performance Testing

Test	Purpose
<ul style="list-style-type: none"> <li>Balloon Rated Burst</li> <li>Balloon Deflation Time</li> </ul>	To compare the minimum burst pressure and deflation times of the subject device and the predicate device. The data will support a premarket notification for the Bridge™ X3 Stent
<ul style="list-style-type: none"> <li>Diameter versus Inflation Pressure</li> </ul>	To create and compare the compliance curves for the subject device and the predicate device. The data will support a premarket notification for the Bridge™ X3 Stent.
<ul style="list-style-type: none"> <li>Balloon Bond Strength</li> </ul>	To create and compare the balloon bond strength for the subject device and the predicate device. The data will support a premarket notification for the Bridge™ X3 Stent
<ul style="list-style-type: none"> <li>Crossing Profile</li> </ul>	To create and compare the crossing profile for the subject device and the predicate device. The data will support a premarket notification for the Bridge™ X3 Stent.

The performance testing and comparison of the extra support Bridge™ Stent and the Bridge™ X3 Stent prove the two devices are substantially equivalent. The summary includes any other information reasonably deemed necessary by FDA.

### Biocompatibility

The material used in Bridge™ X3 Stent passed all biocompatibility tests.

### Sterilization

The Bridge™ X3 Stent is provided sterile.

The Bridge™ X3 Stent is not intended for sterilization or reuse/resterilization by the user.

Medtronic AVE validates the sterilization method for its stent delivery systems according to the ANSI/AAMI/ISO 11137 - 1994, Method I: Sterilization of Healthcare Products - Requirements for Validation and

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## 510(k) Summary for the Bridge™ X3 Stent, Continued

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**Sterilization**

Routine Control - Radiation Sterilization. The Sterility Assurance Level (SAL) is  $10^{-6}$ .

The Bridge™ X3 Stent is labeled pyrogen free. LAL testing is performed daily in compliance with FDA guidance on Validation of Limulus Amebocyte Lysate Test as an End Product Endotoxin Test for Human and Animal Parenteral Drugs, Biological Products and Medical Devices - Section V - 2 Inhibition and Enhancement Testing as part of Medtronic AVE's product release criteria.

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

JUN 5 2000

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Ms. Susan Walton  
Regulatory Coordinator  
Medtronic AVE, Peripheral Technologies  
2170 A Northpoint Parkway  
Santa Rosa, CA 95407

Re: K000744  
Medtronic AVE Bridge™ X3 Biliary Stent System  
Regulatory Class: II  
21 CFR 876.5010  
Product Code: 78 FGE  
Dated: March 3, 2000  
Received: March 7, 2000

Dear Ms. Walton:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act and the limitations described below. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

The Office of Device Evaluation has determined that there is a reasonable likelihood that this device will be used for an intended use not identified in the proposed labeling and that such use could cause harm. Therefore, in accordance with Section 513(i)(1)(E) of the Act, the following limitation must appear in the Warnings section of the device's labeling:

The safety and effectiveness of this device for use in the vascular system  
have not been established.

Furthermore, the indication for biliary use must be prominently displayed in all labeling, including pouch, box, and carton labels, instructions for use, and other promotional materials, in close proximity to the trade name, of a similar point size, and in bold print.

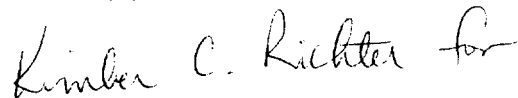
If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. *Please note:* this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and permits your device to proceed to the market. This letter will allow you to begin marketing your device as described in your 510(k) premarket notification if the limitation statement above is added to your labeling, as described.

Please note that the above labeling limitations are required by Section 513(i)(1)(E) of the Act. Therefore, a new 510(k) is required before these limitations are modified in any way or removed from the device's labeling.

If you desire specific information about the application of other labeling requirements to your device (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4616. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address "<http://www.fda.gov/cdrh/dsma/dsmamain.html>".

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Kimber C. Richter for", written in dark ink.

David W. Feigal, Jr., M.D., M.P.H.  
Acting Director  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

510(k) Number (if known): K000744

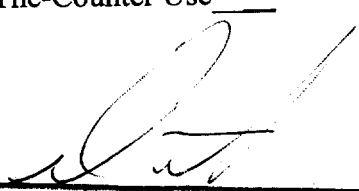
Device Name: Medtronic AVE Bridge™ X3 Biliary Stent System

FDA's Statement of the Indications For Use for device:

The Medtronic AVE Bridge™ X3 Biliary Stent System is intended to maintain patency of a bile duct which is occluded by a malignant tumor.

Prescription Use ☒ OR  
(Per 21 CFR 801.109)

Over-The-Counter Use ☐

  
\_\_\_\_\_  
(Division Sign-Off)

Division of Reproductive, Abdominal, ENT,  
and Radiological Devices

510(k) Number K000744